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A NEW SPECIES OF *JUSTICIA* (ACANTHACEAE) FROM NORTHEASTERN MEXICO

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ABSTRACT

A new species of *Justicia* sect. *Pentaloba* is described from Nuevo León, México: **J. hintoniorum**. It is most closely related to *J. pilosella* and *J. turneri*, differing from both in its hairy capsules.

KEY WORDS: *Justicia*, *Siphonoglossa*, Acanthaceae, México

Hilsenbeck (in Henrickson and Hilsenbeck 1979) segregated four species of the genus *Siphonoglossa* Oerst. as *Siphonoglossa* sect. *Pentaloba* Hils. At the conclusion of his studies, Hilsenbeck (1990) transferred sect. *Pentaloba* to *Justicia*, but even within the latter genus, the species of sect. *Pentaloba* still form a distinctive group, particularly on the basis of their terete and greatly elongated floral tubes. The species of sect. *Pentaloba* differ from typical *Siphonoglossa* in the following features: floral bracteoles foliaceous and oblong to lanceolate (vs. subulate-bracteate), flowers axillary (vs. mostly spicate), calyces 5 lobed (vs. 4 lobed), stigmas 2 lobed (vs. 1 lobed), capsules ovoid (vs. fiddle shaped), seeds strongly flattened (vs. thickened), and a base chromosome number of $x=14$ (vs. $x=11$). All four species of sect. *Pentaloba* have their primary geographic range in northeastern México and adjacent Texas, west into Arizona.

In the identification of recently collected specimens and accompanying curation of other LL,TEX accessions, a previously undescribed species of *Justicia* sect. *Pentaloba* (Hils.) Hils. has been discovered.

Justicia hintoniorum Nesom, *sp. nov.* TYPE: MEXICO. Nuevo León: Mpio. Aramberri, N of Aramberri, IRF Lampacitos, 995 m, 16 Jun 1990, *Hinton et al. 20354* (HOLOTYPE: TEX!).

Justiciae pilosellae (Nees) Hils. et *J. turneri* Hils. similis sed ab ambobus fructibus strigosi-hirsutulis differt; a *J. turneri* corollis purpureis lobis majoribus differt; a *J. pilosella* foliis majoribus tenuioribus discoloribusque differt.

Perennials with ascending-erect stems 8-18 cm tall, slightly woody at the base, arising from slender rhizomes, densely pilose-hispid with a mixture of stiffly spreading to slightly deflexed hairs 1.0-1.5 mm long and shorter (0.3-0.5 mm long), strongly deflexed hairs, the hairs with a slight tendency to occur in lines on the stem. Leaves opposite, relatively thin, discolorous (lighter beneath), ovate to elliptic, mostly (15-)30-80 mm long with petioles 3-15 mm long, the blades 10-30 mm wide, eglandular, strigose-puberulent beneath, moderately to sparsely strigose-hispid above, the petioles with spreading cilia up to 1.5 mm long. Flowers axillary, sessile, solitary in upper half of the plant; paired bracteoles obovate to slightly spatulate, 10-14 mm long, 3-4 mm wide; calyx 7-10 mm long, the lobes linear-triangular, 0.3 mm wide at base, 6-9 mm long, equal, united for ca. 1 mm at the base; corollas distinctly purplish, moderately hispid, the tube 16-22 mm long, ca. 2 mm wide, the upper lobe erect, oblong, apically 2 toothed, 8-9 mm long, 2.5-3.0 mm wide, the lower 3 lobes spreading, oblong-oblanceolate, apically rounded, 6-10 mm long, 3.5-6.0 mm wide; stamens 2, exserted 3-6 mm from the tube, the thecae subparallel, 1.0-1.5 mm long, lower with a spurred base; styles ca. equal the tube length, slightly hispid-strigose near the base, the stigmatic lobes 0.1 mm long. Capsules ca. 10 mm long, basal stipe strongly flattened, 4-5 mm long, the head ovoid, 5-6 mm long, 3-4 mm wide, brown, prominently pubescent with stiff, retrorsely appressed hairs on the basal 2/3 and shorter, erect hairs near the apex. Seeds 4, bright orange, 2.5-3.0 mm long and wide, strongly flattened and disciform, without a thickened margin, the faces with bullate tuberculate incrustations 0.1-0.2 mm broad. Chromosome number unknown.

Additional collections examined: MEXICO. Nuevo León: Mpio. Iturbide: Iturbide to Camarones, oak and pine woods, 1305 m, 6 Sep 1991, *Hinton et al. 21416* (TEX); Iturbide to Agua Blanca, mixed forest of oak and walnut, 1385 m, 21 Aug 1991, *Hinton et al. 21216* (TEX); 16 mi W of Linares, rocky mt. side from Hwy 60, on shale, mixed oak, *Mimosa*, with *Zamia* and *Agave*, 8 Sep 1962, *Turner & Powell 1051* (TEX).

The distinctiveness of this species was focused by the three recent collections (including the type) made by the Hinton family. The first known collection (*Turner & Powell 1051*), however, was made almost 30 years earlier and has been identified by Hilsenbeck as *Justicia pilosella*, although the salient features of *S. hintoniorum* were not noted in his description (1990) of *J. pilosella*. Fruiting specimens of *J. hintoniorum* can be immediately distinguished from the other four species of sect. *Pentaloba* by their prominently strigose-hirsute capsules; the new species differs from *J. pilosella* in its larger, thinner, discolorous leaves and from *J. turneri* in its purple corollas with much larger lobes. These three species are most closely related among themselves; the other two species of sect. *Pentaloba* occur further west in México and the southwestern United States and are characterized by linear leaves.

All four collections of *Justicia hintoniorum* have been made in a relatively

small area of southeast-central Nuevo León. The geographic range of *J. hintoniorum* is essentially contiguous with that of *J. turneri* (which occurs mostly to the east and northeast) and apparently completely overlapping with that of *J. pilosella*. Both of the latter species have been collected very near or within the range of *J. hintoniorum*.

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